Binaural Audio Intercom and Communications System (BACIS)

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Department of Defense

Branch
Air Force
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SBIR

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Phase II
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Solicitation Topic Code:
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Solicitation Number:
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Small Business Information
SYSTRAN FEDERAL CORP.
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Hubzone Owned:
N

Socially and Economically Disadvantaged:
N
Woman Owned:
N

Duns:
n/a

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Research Institution:
n/a
Abstract

Systran will design and selectively demonstrate (in Phase I), and develop and significantly demonstrate (in Phase II) a system to specifically improve the situational awareness of personnel during military operations. Called BACIS (Binaural Audio Intercom and Communications System), this

system utilizes 3-dimensional binaural audio technology coupled with miniature GPS (Global Positioning System) modules and embeddable compass/tilt modules. BACIS will provide intuitive 3-minensional positional audio communications using standard stereo headsets. BACIS will function in one of two ways: (1) as an adjunct to our existing SCRAMNet low-latency, high-bandwidth networking system, and (2) as a stand-alone module for incorporation into other communication architectures. Both implementation methods will utilize a new, highly integrated circuit called the SongBird 3D audio accelerator from VLSI Technologies. We propose to implement BACIS in two form factors: as a PMC (peripheral component interface Mezzanine Card), the smaller form factor, and as a PCI (peripheral Component Interface), a somewhat larger form factor. Systran is an experienced develop of both PMC and PCI hardware products; we are certified to ISO-9001 for such products and we sell them throughout the world. Our BACIS hardware will be complimented with a robust Microsoft Windows NT development toolkit to support BACIS custom applications.

* information listed above is at the time of submission.